

To: Abrams, Dan[Abrams.Dan@epa.gov]; Purchia, Liz[Purchia.Liz@epa.gov]; Harrison, Melissa[Harrison.Melissa@epa.gov]; Lee, Monica[Lee.Monica@epa.gov]; Allen, Laura[Allen.Laura@epa.gov]; StClair, Christie[StClair.Christie@epa.gov]; Hull, George[Hull.George@epa.gov]
From: Ludwigsen, Emily
Sent: Tue 8/11/2015 4:30:17 PM
Subject: RE: CO Spill - Clips 8/11

CNN

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<http://www.cnn.com/2015/08/10/us/epa-river-spill-residents/>

Colorado health official: No river health risk

Dana Ford and Ed Payne

August 11, 12:13 PM

(CNN)[Breaking news update 12:10p.m. ET]

Preliminary tests show that the Animas River in Durango, Colorado, "doesn't appear" to present a health risk, Colorado's top health official said Tuesday. Following a spill of mine wastewater into the river, the metal levels along the river in the Durango area have returned to pre-incident levels, Dr. Larry Wolk said. The river remains closed, but could reopen soon.

From his backyard in Durango, Colorado, Tom Bartles can see the Animas River, which was stained an unnatural orange.

The Environmental Protection Agency accidentally released millions of gallons of pollutants into the water last week, turning the typically blue water to the color of mustard.

"Everybody in town knew it was coming. It was hard to wake up in the morning and see an

orange river," Bartles told CNN. "Many of the locals in this region are probably going to experience a certain level of mourning."

By Tuesday, the plume of heavy metals had largely moved on and the river looked clear. A tourist probably wouldn't notice anything was off, but a local would know it's not quite right, Bartles said.

And for him, the biggest concern wasn't the immediate threat anyway; it's the spill's potential long-term and cumulative impact.

"This is a major, major problem," said Jonathan Freedman, a toxicologist at the University of Louisville.

Typically it takes years or even decades for health problems from metals to develop.

Animas River toxic spill: 'This is a real mess'

'We all share this crisis'

Officials said they believe the spill carried metals like iron, zinc and copper into a creek that feeds into the Animas.

It caused a spike in concentrations of total and dissolved metals in the water, the EPA said. It's unclear exactly what effect that will have.

"It's all questions at this point and very few answers," said Bartles, who described the Animas as the "heartbeat of the community."

A lot of people depend on the river for water, recreation, fishing and farming -- not just in Durango, but up and down the waterway.

"We all share this crisis no matter where we live," said Bartles. "And we all have to take responsibility."

Moving downstream

In neighboring New Mexico, the heartbreak of the spill was just as real as the toxic mix moved on.

"We came out here together, and we looked at the river and we cried," Rosemary Hart told CNN affiliate KRQE.

She lives on the Animas and her family depends on a well to get water. The spill has made the water unusable, she said.

"My first concern is the next generations, and what they're walking into," Hart told KRQE.

The U.S. Geological Survey reported the size of the spill to be more than 3 million gallons, compared with the initial EPA estimate of 1 million gallons.

Gov. Susana Martinez has declared a state of emergency.

EPA spill turns Colorado river orange

11 photos: EPA spill turns Colorado river orange

According to the EPA, the spill occurred when one of its teams was using heavy equipment to enter the Gold King Mine, a suspended mine north of Durango. Instead of entering the mine and

beginning the process of pumping and treating the contaminated water inside as planned, the team accidentally caused it to flow into the nearby Animas.

Getting answers from the EPA is critical, according to Doris Stock, who lives along the river.

"We could lose our animals. It could damage our crops. It'll destroy the soil," she told KRQE.

Few answers

Residents are looking for answers, but the EPA has few to offer at this point.

More than 300 people attended an informational meeting at the Farmington, New Mexico, Civic Center on Monday night.

"Over the next few days, the waters in the river are going to clear up," said Jeff Witte, New Mexico's agriculture secretary. "That's doesn't mean they're safe folks."

Mark Hayes of the EPA reminded residents not to use the water until they get an all clear. When that will be, officials don't know.

The dangers

According to the EPA, last Wednesday's spill caused a spike in metal concentrations, but levels "began to return to pre-event conditions" by Thursday.

However, according to the EPA's own data, there were still very high levels of metals on Thursday. An arsenic sample tested 26 times higher than the EPA acceptable level.

Lead was even worse -- much worse.

"Oh my God! Look at the lead!" said Joseph Landolph, a toxicologist at the University of Southern California, pointing to a lead level in the Animas River nearly 12,000 times higher than the acceptable level set by the EPA.

And one thing is for sure: these metals don't disappear. Even if they go down to low levels in the water, they will likely be in the sediment and could be kicked up into the water at any time.

"This was such a horrible accident," Landolph said. "I served on the EPA scientific advisory board, and I have the utmost respect for the agency. I wish them Godspeed in cleaning it up and containing it."

'We'll weather it'

Among those most hurting from the spill are businesses that depend on the Animas day to day.

Andy Corra is an owner of the Durango-based 4Corners Riversports, which has a sister company called 4Corners Whitewater.

"The river is basically closed so that shuts down all the rafting," he said. "They're losing all their revenue."

On good days, he said, that could be as much as \$10,000 a day.

"One day business is booming, and the next day, boom, it's shut off," said Corra. "It's a huge bummer for the whole industry."

He's been in Durango for 35 years and loves it. He called the city a paradise and, without exaggeration, the greatest place in the world.

"We'll weather it. There's a bigger concern for the river, but the river will weather it as well," said Corra.

From: Ludwigsen, Emily

Sent: Tuesday, August 11, 2015 12:21 PM

To: Abrams, Dan; Purchia, Liz; Harrison, Melissa; Lee, Monica; Allen, Laura; StClair, Christie; Hull, George

Subject: RE: CO Spill - Clips 8/11

AllGov, EarthWorks, Environmental Leader, Junior College, Mining Technology, Public News Service

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AllGov

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<http://www.allgov.com/news/top-stories/ooapsea-causes-3-million-gallon-wastewater-release-into-river-150811?news=857172>

Oops...EPA Causes 3 Million-Gallon Wastewater Release into River

Noel Brinkerhoff, Danny Biederman

August 11, 2015

The U.S. Environmental Protection Agency (EPA) turned itself into the environmental destruction agency last week when it caused millions of gallons of mine waste to pour into a river that provides drinking water for thousands of people.

An EPA-supervised crew working inside the abandoned Gold King Mine in Colorado accidentally breached a wall holding back wastewater containing heavy metals, such as arsenic and lead.

The breach resulted in three million gallons of yellow/orange-colored waste spilling into the Animas River, which supplies drinking water to residents of Durango, Colorado (population 17,000). The river also flows through or near communities in New Mexico (Farmington, Aztec and Kirtland) and Utah's Bluff, which is popular with tourists.

The EPA initially said one million gallons of contaminated water had flowed into the river before revising its estimates. The rate of the leak out of the mine was calculated at 1,200 gallons per minute.

As far as the health risks posed by the accident, EPA toxicologist Deborah McKean told the media that it depended on the obvious, saying the "risk associated with exposure to a chemical is a matter of how much of the chemical you are exposed to." Testing of water collected at sample stations along the Animas showed increased levels of arsenic, lead, aluminum, copper and other potentially toxic heavy metals, officials reported. "Those numbers are high and they are scary because they seem so high," added McKean.

As of Sunday, discolored water had traveled 100 miles from where it originated, reaching municipalities in New Mexico. Two Colorado counties, La Plata and Durango, have declared states of emergency.

Durango city officials noted that an intake valve had been turned off prior to the spill, prompting Durango Mayor Dean Brookie to offer reassurance to the town's citizens. "Your water never has been and never will be contaminated," he said. "Your water is safe to drink."

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EarthWorks

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Major Colorado mine waste spill highlights urgency for comprehensive mining law reform

August 11

Last Wednesday, the US experienced one of its worst mining-related disasters in decades, and it's received a lot of attention both here in Colorado and nationally. There's been no shortage of name calling and blaming, but few seem to be speaking of the bigger picture: how can we learn from this and write policies and regulations that stop this from happening again?

The Gold King underground mine near Silverton – about 40 river miles north of Durango on a tributary of the Animas River – was slated to be plugged so that acid mine drainage would stop spilling into the river system. When crews began clearing debris and a temporary blockade to finish the work, they underestimated how much water had collected behind the inactive mine, and three million gallons of acidic, heavy metal-laden water came pouring out at once, turning the clear waters of the Animas deep orange for roughly 60 miles. The river was closed to all recreation while scientists rushed off to sample waters that had increased two orders of magnitude in acidity within 48 hours. Municipal water suppliers, farmers and ranchers shut off taps and valves to brace for the worst.

Many have suggested the spill would have happened anyway at some point because nearby plugs at other mines caused the water table to rise, thereby increasing water pressure behind the Gold King mine. But even if it didn't, prior to the plugging project the mine was already leaching hundreds of gallons per minute from the shaft, which ties into a complex hydrologic system linking many mines together.

This spill is tragic. It has put drinking water and wildlife at risk, and polluted a river that I know well, one right in my backyard. But the focus should be less on the crew that accidentally triggered the release, and more on the broader story of entire regions throughout the country, particularly in the West, facing immense cleanup challenges from mines of the past. When we consider the tens of thousands of abandoned mines and inactive mines that leak as I write this, impacting water quality and wildlife 24/7, there has never been a better time to act. It's time to urge our elected officials and regulators to create the framework needed to address the broader problems.

Because of the antiquated 1872 Mining Law, companies take federal (read: publicly owned, by you, the taxpayer) minerals with no royalty payments and are generally allowed to operate on any federal lands they select, regardless of public opposition. Even more heinous, new mega-mines are allowed to be built even though it's clearly understood that they will have to treat acidic, metal-laden runoff for thousands of years at extreme cost. Not only are we allowing companies to take minerals for free, but we're telling them it's OK to create the same type of permanent water treatment liabilities that polluted the Animas.

It's long overdue to reform the governing laws that allow today's mines to be the problems of future generations. By placing a federal prohibition on new mines that we know will pollute forever we will make sure that no mine gets built that can't clean up after itself. And by making mining companies help pay to correct past mistakes, we can make sure agencies and citizen groups have the money they need to do remediation projects properly and holistically, not pinching pennies and cutting corners because of federal budget cuts. The Animas spill was a tragic testament to the environmental liabilities that persist from mines like the Gold King, but looking at it by itself is not the path ahead. Many other locations face similar accidental risks as well as ongoing problems.

Environmental Leader

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<http://www.environmentalleader.com/2015/08/11/epa-spills-3m-gallons-of-wastewater-into-animas-river/>

EPA Spills 3M Gallons of Wastewater into Animas River

August 11, 2015

More than 3 million gallons of mustard-colored wastewater has poured into the Animas River in San Juan County, Colorado, since Aug. 5 as the result of the Gold King Mine spill caused by the EPA.

A team from the EPA was investigating contamination at the abandoned mine when loose

material that had collapsed into the cave entry unexpectedly gave way, opening the mine tunnel and spilling the water into Cement Creek, a tributary of the Animas.

There were several workers at the site at the time of the breach, but no one was harmed.

As of Aug. 8, the flow from the mine was measured at 548 gallons per minute, and the discolored water from the spill had stretched more than 100 miles from where it originated, according to a report in the Denver Post.

Water collected at sampling stations along Cement Creek and the upper Animas on Aug. 9 found higher-than-normal levels of arsenic and other heavy metals. The mine water is being diverted to settling ponds constructed near the portal and treated with lime and sodium hydroxide solution to facilitate sedimentation of the metals in the ponds. Flocculant is being added to increase the amount of sedimentation.

The metal levels are dropping as the plume drifts farther down the river and is diluted; however, heavy metals will settle on the riverbed as the tail of the plume travels downstream, so a long-term monitoring plan will be needed.

La Plata County and Durango both declared a state of local emergency as a result of the spill.

It is unclear at this time if the spill will have negative impacts on drinking water, public health, agriculture, fish and wildlife. The city of Durango uses drinking water from the Animas, but an intake valve was turned off before contaminated water reached it, city officials said. Fish are especially sensitive to changes in water quality. Colorado Parks and Wildlife officials have been monitoring the effects of the spill on terrestrial and aquatic wildlife since the incident began.

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Junior College

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<http://www.tjcnewspaper.com/us-anti-pollution-workers-turn-river-orange-in-toxic-spill-23547/>

US anti-pollution workers turn river orange in toxic spill

Bill Blare

August 11

Lead, arsenic and other heavy metals are being blamed for turning the water the yellow colour, according to the local Colorado ABC News.

“The Animas River, to Durango and Southwest Colorado, is not just a river, it is our lifeblood in so many ways”, she said. “It’s not a good deal”.

The San Juan River arm of the lake does draw fishermen and river runners, but visitation has probably diminished as lake levels have dropped due to the ongoing drought, she said.

Also, federal and state officials said Sunday that a major potential problem could be the potentially hazardous sediment that sinks to the bottom of the river as the plume passes and that could be kicked up again in flooding or weather events. They also urged people not to flush their wells, as a flush could suck existing tainted water into the well and contaminate it.

The agencies will provide free water testing from 9 a.m.to 5 p.m. through Friday at the San Juan County Sheriff’s Office substation in Lee Acres, 21 County Road 5500 in Farmington.

Simon expects the spill to have lasting effects on the 126 mile long river of up to two years.

Communities and farms along the river seem to be the most heavily impacted so far. USA Today reports EPA efforts are restraining the yellow sludge in three open containment areas, but they filling to maximum capacity fast and may yet release more toxic mine waste into the waters of the Animas.

It also helps pay for water quality sampling by the state, assessing impacts on fish and wildlife, and any possible cleanup. Cleaning up the mines is very costly, and the Clean Water Act says that anyone who contributes to pollution of a waterway can be prosecuted for a federal crime, even if they were trying to clean up pollution.

The gush of orange water on Wednesday almost flipped an SUV parked nearby as it poured hundreds of feet down a steep gully before joining Cement Creek and then flooding the Animas River.

Still, residents were advised to avoid drinking or bathing in water drawn from wells in the vicinity, and the government was arranging to supply water to homes and businesses in need.

The EPA now says 3 million gallons of wastewater spilled Wednesday and Thursday, instead of 1 million.

During the weekend, the sludge reportedly reached New Mexico. "Already, a lack of water is taking a toll on these individuals and their livelihoods".

Affected water contained elevated levels of arsenic and other metals, the Denver Post reported, noting that it was unclear if the spill posed health risks to humans and aquatic life.

John Hickenlooper declared a state of emergency and will visit the area Tuesday.

“Collection, transportation and lab analysis of metals in water is complex and time-consuming”, the agency said in a statement.

It’s unclear what kind of environmental impact the spill will have on Colorado and now New Mexico as the contaminated water flows downstream.

The wastewater was accidentally spilled by the Environmental Protection Agency as they attempted cleanup work on Gold King Mine, upstream from Durango.

The mine had been inactive since 1923.

State environment officials in New Mexico and Utah say the plume is passing through the Navajo Nation and headed toward Montezuma Creek near the town of Bluff, a tourist destination.

Members of New Mexico’s congressional delegation sent a letter to EPA Administrator Gina McCarthy, expressing concern over the failure of the agency to notify New Mexico sooner.

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Mining Technology

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<http://www.mining-technology.com/news/newscolorado-new-mexico-declare-emergencies-following-wastewater-spill-gold-king-mine-4644358>

Emergencies in Colorado and New Mexico after wastewater spills from Gold King Mine

August 11, 2015

US states Colorado and New Mexico have declared emergencies in after a three million gallon waste spill into the Animas River in Colorado from the Gold King Mine.

On 5 August, the Environmental Protection Agency (EPA) employed workers accidentally triggered a breach at the mine in San Juan County during an investigation.

The investigation was aimed at evaluating the ongoing water releases from the site and to treat mine water, as well as assessing the feasibility of further mine remediation.

Loose material that collapsed into the cave entry was planned to be excavated back to the timbering.

"It is absolutely devastating, and I am heartbroken by this environmental catastrophe."

The water discharge is estimated to have contained potentially harmful contaminants into Cement Creek, which flowed into the Animas River and continued downstream.

New Mexico Governor Susana Martinez said: "I had the chance to see the spill with my own eyes. It is absolutely devastating, and I am heartbroken by this environmental catastrophe.

"As I've said before, I am very concerned by EPA's lack of communication and inability to provide accurate information. One day, the spill is one million gallons. The next, it's three million."

EPA said it is monitoring water contaminated by the release by working with responders and local and state officials.

High concentrations of heavy metals such as arsenic, mercury and lead were found in the release and the discharge was continuing to flow at the rate of 500 gallons per minute.

During this process, the material pile gave way, opening the adit and causing the spilling of water that was stored behind the collapsed materials into Cement Creek.

Colorado Governor John Hickenlooper issued an executive order that allocates \$500,000 to pay for the response and technical assessments, while New Mexico Governor Susana Martinez has declared \$750,000 in state funds.

Hickenlooper said: "Our priority remains to ensure public safety and minimise environmental impacts.

"We will work closely with the EPA to continue to measure water quality as it returns to normal, but also to work together to assess other mines throughout the state to make sure this doesn't happen again."

Public News Service

<http://www.publicnewsservice.org/2015-08-11/environment/gold-king-mine-spill-impacts-utah/a47652-1>

Gold King Mine Spill Impacts Utah

August 11, 2015

MONTICELLO, Utah – San Juan County in southeastern Utah is now feeling the impact of the Gold King Mine spill in southwestern Colorado, in which three million gallons of toxic sludge escaped into the Animas River.

Part of the Colorado River system, the Animas is a tributary of the San Juan River, which is a tributary of the Colorado River.

The San Juan County Sheriff's Office says residents should not drink, swim, raft or water livestock with San Juan River water until the EPA clears it for use. Gary Wockner, executive director of Save the Colorado, says there are also questions about the effects the contamination may have as it enters Lake Powell.

"It'll flow into Lake Powell, which is the Colorado River," he says. "How bad it's going to be and how toxic it's going to be is still a question."

Lake Powell and Lake Mead are the two primary reservoirs for the Colorado River.

The EPA says its own crews accidentally caused the release of three million gallons of water containing dissolved metals from the abandoned Gold King Mine last Wednesday. The agency says it's still testing the sludge for toxicity levels, and is treating contaminated water in containment ponds.

Wockner says the Gold King Mine spill shows how vulnerable the Colorado River system is to potentially toxic devastation from century-old mines.

"There are hundreds and hundreds of abandoned mines in the mountains in Colorado and New Mexico and elsewhere," he says, "Many of those have acid mine-drainage problems."

There is an additional ban on using water for any almost purpose in Farmington, New Mexico, which relies on the Animas River as its major water source.

From: Ludwigsen, Emily
Sent: Tuesday, August 11, 2015 11:42 AM
To: Abrams, Dan; Purchia, Liz; Harrison, Melissa; Lee, Monica; Allen, Laura; StClair, Christie; Hull, George
Subject: CO Spill - Clips 8/11

Associated Press, CBS News, Denver Post, Dispatch Times, Thomson Reuters

Associated Press (via LA Times)

<http://www.latimes.com/nation/nationnow/la-na-nn-navajo-nation-colorado-mine-spill-20150810-story.html>

Towns and tribes block intake of river water polluted by Colorado mine spill

Associated Press

August 10, 6:35PM

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Farmers, towns and tribes slammed water intake gates shut as a sludge-laden plume from a Colorado mine spill rolled down principal rivers in the desert Southwest on Monday, prompting local officials and families to demand answers about possible long-term threats from heavy metals borne along by the spill.

Colorado and New Mexico declared stretches of the Animas and San Juan rivers to be disaster areas as the orange-colored waste stream estimated to be 100 miles long churned downstream toward Lake Powell in Utah after the spill Wednesday at the abandoned Gold King Mine.

The Navajo Nation, which covers parts of New Mexico, Utah and Arizona, also declared an

emergency as it shut down water intake systems and stopped diverting water from the San Juan River.

The 3 million gallons of mine waste included high concentrations of arsenic, lead and other heavy metals. Workers with the Environmental Protection Agency accidentally unleashed the spill as federal and contract workers inspected the abandoned mine site near Silverton, Colo.

The EPA has said the contaminants were rolling too fast to be an immediate health threat. Experts and federal environmental officials say they expect the massive river system to dilute the heavy metals before they pose a longer-term threat.

Dissolved iron in the waste turned the long plume an alarming orange yellow — a look familiar to old-time miners who call it “yellow boy” — so “the water appears worse aesthetically than it actually is, in terms of health,” said Ron Cohen, a civil and environmental engineering professor at the Colorado School of Mines.

EPA officials said stretches of the rivers would be closed for drinking water, recreation and other uses at least through Aug. 17.

Tests show some of the metals have settled to the bottom and would dissolve only if conditions became acidic, which isn't likely, Cohen said.

Contaminated water from an old gold mine flows through the Animas River in Durango, Colo., on Saturday. The Environmental Protection Agency initially estimated the spill at 1 million gallons, but tripled it to 3 million gallons Sunday.

The best course for the EPA would be to leave the metals where they settle, he said, noting that next spring's mountain snowmelt would help dilute the contaminants further and flush them downstream.

No die-off of wildlife along the river has been detected. Federal officials say all but one of a test batch of fingerling trout deliberately exposed to the water survived over the weekend. In

addition, the Colorado-based Mountain Studies Institute environmental group saw no immediate unusual effects in flies exposed to the water, program director Aaron Kimple said.

As a precaution, state and federal officials along the river system have ordered public water districts to turn off intake valves as the plume passes. Boaters and fishing groups have been told to avoid affected stretches of the Animas and San Juan rivers, which are crowded with rafters and anglers during summer.

Congress members, state officials and residents contend the EPA is not providing quick answers about long-term effects from the spill.

“There are more people who want to know, ‘OK, what's going to happen now? Are you going to fix this?’” said Michele Truby-Tillen, a spokeswoman for the San Juan County Office of Emergency Management in New Mexico. “‘How are we going to protect our families? How long am I not going to be able to shower at my house?’”

In Cedar Hill, N.M., a family farm that serves as many as 3,000 customers in the Four Corners region has been forced to stop irrigating dozens of acres of crops.

D'rese Sutherland of Sutherland Farmers said she received warning from farmer friends in Colorado about the approaching plume.

“By the weekend, without any rain, we'll be in trouble,” she said. “There's nothing we can do but wait and see what happens.”

Members of New Mexico's congressional delegation sent a letter to EPA Administrator Gina McCarthy expressing concern over the failure of the agency to notify New Mexico sooner about the problem.

They also asked that the agency develop a plan for dealing with the lack of water for

communities in San Juan County and the Navajo Nation.

The EPA said in a statement that it was sharing information as quickly as possible with the public as its experts evaluated any effects of the spill.

Recreational businesses along the rivers said they were losing thousands of dollars.

“We had lots of trips booked. Right now we're just canceling by the day,” said Drew Beezley, co-owner of 4 Corners Whitewater in Durango, Colo.

He said his company had canceled 20 rafting trips so far. His dozen employees are out of work until the river is deemed safe to enter again.

“We don't really know what the future holds yet,” said Beezley, who estimates that he's lost about \$10,000 worth of business since the spill. “We don't know if the rest of this season is just scrapped.”

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CBS News

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<http://www.cbsnews.com/news/toxic-colorado-mine-spill-catastrophic-mayor-says/>

Toxic Colorado mine spill "catastrophic," mayor says (with video)

CBS/AP

August 11, 10:39 AM

ALBUQUERQUE, N.M. -- Local officials in towns downstream from where millions of gallons

of mine waste spilled into a southwest Colorado river are demanding answers about possible long-term threats to the water supply.

Colorado and New Mexico declared stretches of the Animas and San Juan rivers to be disaster areas as the orange-colored waste stream made its way downstream toward Lake Powell in Utah after the spill Wednesday at the abandoned Gold King mine near Silverton, Colorado.

The 3 million gallons of mine waste included high concentrations of arsenic, lead and other heavy metals. Workers with the EPA accidentally unleashed the spill as they inspected the abandoned mine site.

Durango, Colorado Mayor Dean Brookie said the toxic spill has been devastating, CBS Denver reports.

"It's been really catastrophic for this community emotionally ... I call it the three E's, environment, economy and emotion of our town," said Brookie.

EPA officials said Monday that there was no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell. But that has done little to ease concerns or quell the anger caused by the spill.

Ryan Flynn heads up the New Mexico Environment Department, which is running its own testing center, separate from the EPA.

"We are really frustrated with EPA," he told CBS News correspondent Mireya Villarreal. "First and foremost they didn't tell us about for 24 hours, and that is just unacceptable."

The Navajo Nation, which covers parts of New Mexico, Utah and Arizona, declared an emergency as it shut down water intake systems and stopped diverting water from the San Juan River.

Members of the tribal council were frustrated during a special meeting Monday and echoed the sentiment of New Mexico and Utah officials that the federal government needs to be held accountable.

Utah Attorney General Sean Reyes discussed the legal implications with his New Mexico counterpart, Hector Balderas, and planned to hold a similar call with Colorado Attorney General Cynthia Coffman, Reyes' office said Monday.

"We hope to work with our sister states to ensure our citizens are protected and whatever remediation is necessary occurs as quickly as possible," Reyes said in a statement. "We will continue to evaluate the legal issues as we receive data and monitor the effects on our communities."

Meanwhile, a spokesman for Utah Gov. Gary Herbert said the governor is disappointed in the EPA's initial handling of the spill but the state has no plans for legal action.

The EPA has said the contaminants were rolling too fast to be an immediate health threat. Experts and federal environmental officials say they expect the river system to dilute the heavy metals before they pose a longer-term threat.

The EPA said stretches of the rivers would be closed for drinking water, recreation and other uses at least through Aug. 17.

Dissolved iron in the waste turned the long plume an alarming orange-yellow - a look familiar to old-time miners who call it "yellow boy" - so "the water appears worse aesthetically than it actually is, in terms of health," said Ron Cohen, a civil and environmental engineering professor at the Colorado School of Mines.

Tests show some of the metals have settled to the bottom and would dissolve only if conditions

became acidic, which isn't likely, Cohen said.

The best course for the EPA would be to leave the metals where they settle, he said, noting that next spring's mountain snowmelt would help dilute the contaminants further and flush them downstream.

No die-off of wildlife along the river has yet been detected. Federal officials say all but one of a test batch of fingerling trout deliberately exposed to the water survived over the weekend.

As a precaution, state and federal officials along the river system have ordered public water systems to turn off intake valves as the plume passes. Boaters and fishing groups have been told to avoid affected stretches of the Animas and San Juan rivers, which are crowded with rafters and anglers in a normal summer.

Recreational businesses along the rivers said they were losing thousands of dollars.

"We had lots of trips booked. Right now we're just canceling by the day," said Drew Beezley, co-owner of 4 Corners Whitewater in Durango, Colorado.

He said his company has had to cancel 20 rafting trips so far, and his dozen employees are out of work until the river is deemed safe to enter again.

"We don't really know what the future holds yet," said Beezley, who estimates that he's lost about \$10,000 worth of business since the spill last week. "We don't know if the rest of this season is just scrapped."

The EPA has considered adding a section of the Animas River in Colorado as a Superfund cleanup site at least since the 1990s because heavy metals from Gold King and other defunct mines were killing fish and other species.

The designation would have brought federal clean-up funds, but some in Colorado opposed the move in part because of the stigma attached. The EPA agreed to allow local officials to lead clean-up efforts instead.

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Denver Post

http://www.denverpost.com/environment/ci_28614946/epa-taking-damage-claims-toxic-spill-animas-river

Animas mine disaster: Arsenic, cadmium, lead broke water limits

Bruce Finley and Tom McGhee

Updated: August 11, 8AM

The EPA on Monday expanded its response to the Animas River mining disaster, delivering bottled water in Colorado, New Mexico and Navajo Country and testing for contaminants as far as Lake Powell.

The acidic heavy metals that flooded into Cement Creek and the Animas in southwestern Colorado — including arsenic, lead, copper and cadmium — initially broke state water quality limits, based on data the Environmental Protection Agency has released.

Gov. John Hickenlooper declared a disaster. New Mexico also declared a disaster. California officials have been calling the EPA about water supply implications. Residents along the Animas near Durango, with about 17,000 people, swamped La Plata County with requests for well tests.

And a long-running debate about solutions — possibly involving Superfund status for leaking old mines — is ignited.

But five days after an EPA crew triggered the Gold King mine blowout, EPA regional chief Shaun McGrath still could not give an assessment of potential harm to people.

The spread of toxic heavy metals was such that authorities will block access to the Animas at least until Aug. 17 while the EPA develops "risk-screening criteria" and data show that water has returned to "pre-event conditions," McGrath said.

"The risk-screening levels, that is based on exposures through different uses in this area," he said.

"Are we back down to pre-event conditions? ... That is going to take a little bit of time."

An initial deluge of acid mine wastewater estimated at 3 million gallons brought the concentration of lead in the Animas River to 5,720 parts per billion (ppb), according to the EPA's data — far above the Colorado Department of Public Health and Environment domestic water quality standard of 50 ppb, the shut-off point above which municipal water providers are told not to draw water into their systems.

"That's really high for lead," said Peter Butler, a coordinator of the Animas River Stakeholders Group and former director of the Colorado Water Quality Control Commission.

Scott Roberts, an aquatic biologist with Mountain Studies Institute, collects insects out of the Animas River, in Durango on Sunday, Aug. 9, 2015, to check on their health. MSI has been keeping an eye on the insects starting just before and during the toxic minerals that came down the river from the Gold King Mine on Wednesday. (Jerry McBride, The Durango Herald via The Associated Press)

"They'll want that kind of data in Durango," Butler said. "You would not want to be pulling that into your system. ... These events have happened historically. We've seen other blowouts in the Upper Animas — but much smaller than this one."

The water data available Monday, from a location 15 miles north of Durango, were taken one day after the Gold King blowout. The contamination is expected to be diluted. EPA responders have set up new retention ponds below Gold King.

The data EPA officials posted in tables on a government website Monday show contamination at 6.13 ppb for cadmium, above a state limit of 5 ppb; 264 ppb for arsenic, above a state limit of 10; 326,000 ppb for iron, above a limit of 1,000; 1,120 for copper, above a limit of 1,000 ppb; and 3,040 for manganese, above a limit of 50.

More data measured up river near Silverton six hours after the blowout showed elevated cadmium at 98.3 ppb, zinc at 26,800 ppb, beryllium at 34.8 ppb, aluminum at 91,900 ppb, lead at 150 ppb, and copper at 10,400 ppb.

EPA officials declined to discuss contamination levels. Colorado health and mining officials, who are supporting the EPA, declined to provide requested information or discuss the contamination.

Fish caught in three cages at Durango have survived in the mustard-yellow water.

The EPA has been collecting water at multiple points below the mine, 60 miles north of Durango in the mountains above Silverton. McGrath said the agency is preparing to test water in Lake Powell. EPA officials are hearing concern from California and working with the U.S. Bureau of Reclamation.

Water supply worries intensified, especially in New Mexico communities where the Animas is the sole source of water and near Durango, where thousands of residents rely on shallow wells.

La Plata County officials said they're overwhelmed with phone calls from residents asking for well tests. The officials directed callers to the county fairgrounds, where the EPA provided bottled water.

Hickenlooper's disaster declaration makes \$500,000 available. He and Cabinet officials are headed for Durango.

"We will work closely with the EPA to continue to measure water quality but also to work together to assess other mines throughout the state to make sure it doesn't happen again," Hickenlooper said in a prepared statement.

The problem of leaking old mines around Colorado and the West is a familiar one for state and federal environmental officials. EPA chief McGrath said a "Superfund" designation at Gold King could make resources available for a proper cleanup.

But Silverton and San Juan County officials have long resisted a full-scale federal cleanup — fearing the Superfund stigma could hurt business.

Now concerns are heightened with contaminated water flowing from Colorado into three states and possibly Lake Powell, said Gwen Lachelt, a La Plata County commissioner.

"It's clear that we all understand we are part of the same ecosystem — all the way from La Plata County to the Navajo Nation and beyond. Superfund is one solution to the issue up there," Lachelt said.

"There are a number of others that have been proposed. We need to sit down and roll up our sleeves and begin that conversation," she said.

The EPA seeks local approval before declaring a Superfund site, which can bring federal money, said Butler of the local stakeholders group and state water quality commission.

"The EPA wants the governor of the state to request being placed on a national priorities list for

Superfund," he said. "If the governor's office doesn't believe there is local support, he is unlikely to send that letter."

State and federal officials have talked about cleanups for decades.

Southwestern Colorado residents wonder what a cleanup would mean. "The EPA hasn't given any indication about what area they're thinking about for a designation. People don't want to give them carte blanche."

While some residents support the idea, others point to how the EPA caused this disaster. " ' Gee, look at the way the EPA screwed this up. Why would you want them to do more?' "

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Dispatch Times

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<http://www.dispatchtimes.com/colorado-mine-spill-3-times-larger-than-believed-feds-say/41403/>

Colorado mine spill 3 times larger than believed, feds say

NewsMedia

August 11

On Friday, EPA officials Friday acknowledged causing the catastrophic leak, apologizing to the Durango community but stopping short of detailing the impact of the event.

"We're resigned to the fact that we will not get any irrigation water through our systems for the rest of the season", Yazzie said.

Indeed, EPA Regional Director Shaun McGrath notes, “We’re busting our tails to get that out. We’re going to have to do ongoing monitoring”.

The Animas River is still flowing with toxic waste from the Gold King Mine on Saturday, August 8, 2015, as seen from the 32nd Street Bridge in Durango, Colo., as the Durango & Silverton Narrow Gauge Railroad... Residents were told by the EPA to avoid the river.

Hickenlooper’s declaration of a disaster emergency makes \$500,000 available for response.

Flynn says New Mexico will stand with the Navajo Nation to ensure the EPA compensates everyone in the Four Corners region who has been affected by the spill.

The agency, typically charged with responding to toxic disasters, has claimed responsibility for the spill, which unleashed a chemical brew that caused levels of arsenic, lead and other metals to spike in the Animas River, a tributary that plays a vital role in the culture and economy in this patch of southwestern Colorado.

Cech said it’s hard to predict how long it could take. “There’s just a process here that takes place”.

Until the late 1970s, there were no regulations on mining in most of the region, meaning anyone could dig a hole anywhere and search for gold, silver, copper or zinc.

“Hazard quotients” is scientific shorthand for a complex equation that defines the point at which a given metal becomes unsafe in drinking water.

The spill that sent a yellow-orange sludge from an abandoned Colorado gold mine into the Animas River is three times as large as first thought, the Environmental Protection Agency said.

Instead, they released it into the creek, where it traveled down the Animas, San Juan, and Colorado rivers. The river is now closer to a greenish color. Of those fish, the department said, only one died, according to The Durango Herald.

The episode has inspired new discussions about getting on the Superfund list.

“The people on that side of our state love that river and they recreate on it and the tragedy is what will happen to the aquatic wildlife in that area”, Cech said.

Waste Water from the Gold King Mine near Silverton, in a channel around the adjacent dump.

About 40% of all Western headwater streams are polluted by old hard-rock mines, the EPA has said. The department will provide free water testing from 9 a.m.to 5 p.m.at the San Juan County Sheriff’s Office substation in Lee Acres, 21 County Road 5500 in Farmington.

The state’s Parks and Wildlife agency said Monday it had inserted cages with more than 100 fingerling trout into the river in southwest Colorado near Durango. Gov. John Hickenlooper plans to come to the area Tuesday, officials said.

Meanwhile, environmental activists have begun staging demonstrations against mining operations in eastern Utah – pointing to the Animas River spill.

One thing, however, is for sure: these metals don’t disappear.

The mayor of Miami Beach and other South Florida leaders are joining the opposition to an orca’s decades-long captivity at the Miami Seaquarium.

“A lot of these metals pose longterm health risks”, he said. “I don’t think we will need to wait

another 30 years”.

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Thomson Reuters (via CBCNews)

<http://www.cbc.ca/news/world/colorado-mine-spill-spews-metallic-discharge-into-waterways-1.3186359>

Colorado mine spill spews metallic discharge into waterways

Thomson Reuters

August 10, 8:09PM

Colorado Gov. John Hickenlooper has declared a state of disaster emergency after more than 11.3 million litres of potentially toxic wastewater from a defunct Colorado gold mine was accidentally released into local streams.

On Monday, New Mexico also announced stretches of the Animas and San Juan rivers to be disaster areas as the orange-coloured waste stream estimated to be 160 kilometres long churned downstream toward Lake Powell in Utah after the spill began Wednesday at the abandoned Gold King mine.

New Mexico Gov. Susana Martinez, who toured the region over the weekend, said she was heartbroken and called the spill a catastrophe.

"It's absolutely devastating," she said.

The Navajo Nation, which covers parts of New Mexico, Utah and Arizona, also claimed the spill

to be an emergency as it shut down water intake systems and stopped diverting water from the San Juan River.

Members of the tribal council were frustrated during a special meeting Monday and echoed the sentiment of New Mexico officials that the federal government needs to be held accountable.

Local residents have reported discolouration in water drawn from wells in the vicinity of the spill and have been advised to avoid drinking or bathing in it. (Reuters)

Hickenlooper said the order would free up some \$500,000 US from a state fund for response efforts to the spill, which was inadvertently triggered last week by a team of Environmental Protection Agency (EPA) workers.

The discharge, containing high concentrations of heavy metals such as arsenic, mercury and lead, was continuing to flow at the rate of 1,900 litres per minute as of Sunday.

An unspecified number of residents living downstream of the spill — who draw their drinking supplies from their private wells — have reported water discolouration, but there has been no immediate evidence of harm to human health, livestock or wildlife, according to EPA officials.

Residents have been advised to avoid drinking or bathing in water drawn from wells in the vicinity, and the government was arranging to supply clean water to homes and businesses in need.

"We will work closely with the EPA to continue to measure water quality as it returns to normal, but also to work together to assess other mines throughout the state to make sure this doesn't happen again," Hickenlooper said in a written statement released by his office.

An EPA inspection team was called to the abandoned Colorado mine last Wednesday to examine and clean up previously existing wastewater seepage. (Reuters)

The Colorado Department of Public Health and Environment was testing downstream water quality and wildlife officials are assessing the impacts on fish and other aquatic animals, the governor said.

Last Wednesday, an EPA inspection team was called to the abandoned mine near the town of Silverton, Colo., to examine and clean up previously existing wastewater seepage. Workers instead accidentally released the mine waste into Cement Creek, a waterway that flows into the Animas River.

By Friday, the main plume of the spill had travelled 120 kilometres south to the New Mexico border, prompting local towns to shut off their water intakes from the Animas River, one of the main waterways affected, local authorities said.

Agency officials said they were consulting with representatives of the Navajo Nation.

In recent days, the EPA has been diverting the ongoing release into two newly built settling ponds where the waste was being treated with chemicals to lower its acidity and to filter out dissolved solids before being discharged to Cement Creek.

The creek's water quality has already been badly degraded from a long history of acid mine drainage in the area, agency officials said.

From: Ludwigsen, Emily

Sent: Tuesday, August 11, 2015 11:13 AM

To: Abrams, Dan; Purchia, Liz; Harrison, Melissa; Lee, Monica; Allen, Laura; StClair, Christie; Hull, George

Subject: CO Spill - Clips 8/11

From 8/10 6pm and onward

Associated Press (2), Christian Science Monitor, CNN, The Guardian, Inquisitr, NBC News (3), New York Times, Reuters, Time, TV Newsroom, Wall Street Journal

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Associated Press (via ABC News)

<http://abcnews.go.com/US/wireStory/officials-downstream-colorado-mine-spill-demand-answers-33005658>

Officials Downstream From Colorado Mine Spill Demand Answers

By SUSAN MONTOYA BRYAN and ELLEN KNICKMEYER

Aug 11, 2015, 4:19 AM ET

ALBUQUERQUE, N.M. — Local officials in towns downstream from where millions of gallons of mine waste spilled into a southwest Colorado river are demanding answers about possible long-term threats to the water supply.

Colorado and New Mexico declared stretches of the Animas and San Juan rivers to be disaster areas as the orange-colored waste stream made its way downstream toward Lake Powell in Utah after the spill Wednesday at the abandoned Gold King mine near Silverton, Colorado.

The 3 million gallons of mine waste included high concentrations of arsenic, lead and other heavy metals. Workers with the EPA accidentally unleashed the spill as they inspected the abandoned mine site.

EPA officials said Monday that there was no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell. But that has done little to ease concerns or quell the anger caused by the spill.

The Navajo Nation, which covers parts of New Mexico, Utah and Arizona, declared an emergency as it shut down water intake systems and stopped diverting water from the San Juan River.

Members of the tribal council were frustrated during a special meeting Monday and echoed the sentiment of New Mexico and Utah officials that the federal government needs to be held accountable.

Utah Attorney General Sean Reyes discussed the legal implications with his New Mexico counterpart, Hector Balderas, and planned to hold a similar call with Colorado Attorney General Cynthia Coffman, Reyes' office said Monday.

"We hope to work with our sister states to ensure our citizens are protected and whatever remediation is necessary occurs as quickly as possible," Reyes said in a statement. "We will continue to evaluate the legal issues as we receive data and monitor the effects on our communities."

Meanwhile, a spokesman for Utah Gov. Gary Herbert said the governor is disappointed in the EPA's initial handling of the spill but the state has no plans for legal action.

The EPA has said the contaminants were rolling too fast to be an immediate health threat. Experts and federal environmental officials say they expect the river system to dilute the heavy metals before they pose a longer-term threat.

The EPA said stretches of the rivers would be closed for drinking water, recreation and other

uses at least through Aug. 17.

Dissolved iron in the waste turned the long plume an alarming orange-yellow — a look familiar to old-time miners who call it "yellow boy" — so "the water appears worse aesthetically than it actually is, in terms of health," said Ron Cohen, a civil and environmental engineering professor at the Colorado School of Mines.

Tests show some of the metals have settled to the bottom and would dissolve only if conditions became acidic, which isn't likely, Cohen said.

The best course for the EPA would be to leave the metals where they settle, he said, noting that next spring's mountain snowmelt would help dilute the contaminants further and flush them downstream.

No die-off of wildlife along the river has yet been detected. Federal officials say all but one of a test batch of fingerling trout deliberately exposed to the water survived over the weekend.

As a precaution, state and federal officials along the river system have ordered public water systems to turn off intake valves as the plume passes. Boaters and fishing groups have been told to avoid affected stretches of the Animas and San Juan rivers, which are crowded with rafters and anglers in a normal summer.

Recreational businesses along the rivers said they were losing thousands of dollars.

"We had lots of trips booked. Right now we're just canceling by the day," said Drew Beezley, co-owner of 4 Corners Whitewater in Durango, Colorado.

He said his company has had to cancel 20 rafting trips so far, and his dozen employees are out of work until the river is deemed safe to enter again.

"We don't really know what the future holds yet," said Beezley, who estimates that he's lost about \$10,000 worth of business since the spill last week. "We don't know if the rest of this season is just scrapped."

The EPA has considered adding a section of the Animas River in Colorado as a Superfund cleanup site at least since the 1990s because heavy metals from Gold King and other defunct mines were killing fish and other species.

The designation would have brought federal clean-up funds, but some in Colorado opposed the move in part because of the stigma attached. The EPA agreed to allow local officials to lead clean-up efforts instead.

Associated Press (via WECT Channel 6):

<http://www.wect.com/story/29751297/the-latest-well-water-tested-after-colorado-mine-spill>

The Latest: Spill prompts New Mexico to declare emergency

By Associated Press

4:25 p.m.

New Mexico Gov. Susana Martinez has declared an emergency that frees up state funds to address a massive spill of wastewater from a Colorado mine into the Animas and San Juan rivers.

Federal officials say more than 3 million gallons of water tainted with lead, arsenic and other heavy metals contaminated the rivers following last week's spill.

Martinez on Monday said she was heartbroken and called it an environmental catastrophe.

She joined other officials in criticizing the U.S. Environmental Protection Agency for its lack of communication and transparency after a cleanup crew supervised by the EPA accidentally breached a debris dam at the old mine in southwest Colorado on Wednesday.

Under the governor's order, \$750,000 in state funds will be available for well testing, long-term studies and other efforts.

The amount is in addition to \$500,000 in emergency funds the New Mexico Environment Department requested and received Friday.

3:25 p.m.

The head of the New Mexico Environment Department is calling out federal officials for not quickly notifying the state of a toxic wastewater spill from an abandoned Colorado mine.

Environment Secretary Ryan Flynn said Monday that there was no question the U.S. Environmental Protection Agency did not respond as quickly as it should have and must be held accountable.

A cleanup crew supervised by the EPA accidentally breached a debris dam at the old mine in southwest Colorado on Wednesday.

Flynn says New Mexico will stand with the Navajo Nation to ensure the EPA compensates everyone in the Four Corners region who has been affected by the spill.

The EPA released a statement Monday saying it was sharing information as quickly as possible with the public as its experts evaluate any effects of the spill.

The 3-million gallon spill contains lead, arsenic and other heavy metals. It affected the Animas and San Juan rivers in Colorado and New Mexico before reaching Utah.

Initial testing for heavy metals showed the levels may be high. Flynn says the EPA has agreed to do more comprehensive testing and needs to show it's committed to a long-term cleanup effort.

2:35 p.m.

People are getting their well water tested in northwestern New Mexico after a plume of contaminated water spilled from a Colorado mine into the Animas River.

The New Mexico Environment Department partnered with the U.S. Environmental Protection Agency to begin testing the water Monday.

The agencies are hoping to get a better understanding of the general quality of well water throughout the area.

The state has identified more than 1,100 domestic wells within 1.5 miles of the Animas and San Juan rivers.

Officials in San Juan County also are warning residents not to use river water. Water stations have been set up around the county where residents can fill up containers and get clean water for their livestock.

Donations of bottled water were coming in and the American Red Cross was working to get water to homeless people who live along the river and depend on it for bathing.

Shower facilities were also opened up for residents in need at the San Juan County fairgrounds.

In Utah, Cynthia Sequanna, a spokeswoman for Glen Canyon National Recreation Area, says the park has started warning visitors to avoid drinking, swimming or boating on affected stretches of the San Juan River and Lake Powell until further notice.

2:15 p.m.

Recreational businesses that depend on a Colorado river affected by a mine wastewater spill say they're losing thousands of dollars.

Drew Beezley is co-owner of 4 Corners Whitewater in Durango. He said Monday his company has cancelled 20 rafting trips on the Animas River so far. His 12 employees are out of work until the river is deemed safe to enter again.

Beezley says he's lost about \$10,000 worth of business since the spill last week - and during what promised to be a good rafting year because of heavy snowmelt.

Wild Rivers Expeditions, a river rafting company in Bluff, Utah, says they've lost about \$7,000 in business after customers cancelled rafting trips over worries about heavy metal-laden wastewater making its way to the San Juan River in southern Utah.

On Wednesday, a cleanup crew supervised by the U.S. Environmental Protection Agency accidentally breached a debris dam at an old mine, releasing 3 million gallons of wastewater that contains arsenic, lead and other heavy metals.

1:40 p.m.

Colorado Gov. John Hickenlooper has issued a disaster declaration after millions of gallons of contaminated water spilled from a mine into the Animas River and was making its way to Lake Powell in Utah.

The declaration on Monday releases \$500,000 to assist businesses and towns affected by the 3-million-gallon spill that contains heavy metals including lead and arsenic.

It also helps pay for water quality sampling by the state, assessing impacts on fish and wildlife, and any possible cleanup.

Hickenlooper directed state agencies to seek federal funds or low-interest loans to help entities affected by the spill.

The U.S. Environmental Protection Agency has yet to say if the metals pose a threat to human health, frustrating residents in Colorado and downstream in New Mexico and Utah.

On Wednesday, an EPA-supervised cleanup crew accidentally breached a debris dam that had formed inside Colorado's Gold King Mine, which has been inactive since 1923.

1:15 p.m.

Farms along the Animas and San Juan river valleys in New Mexico have no water to irrigate their crops after a massive spill from a closed Colorado mine.

A family farm in Cedar Hill, New Mexico, that serves as many as 3,000 customers in the Four Corners region has been without water since some 3 million gallons of contaminated water spilled from the Gold King Mine last week.

D'rese Sutherland says if it doesn't rain by the weekend, 80 acres of chile, pumpkins and other produce will be in jeopardy at Sutherland Farms.

Members of New Mexico's congressional delegation sent a letter to the U.S. Environmental Protection Agency on Monday, asking that the agency develop a comprehensive plan for addressing those communities, farms and ranches that are without water.

The letter states the lack of water is already taking a toll on residents and their livelihoods.

12:30 p.m.

Colorado authorities say there are no reports yet of harm to wildlife in that state five days after the release of millions of gallons of heavy metal-laden wastewater from a mine into the Animas River.

The state's Parks and Wildlife agency said Monday it had inserted cages with more than 100 fingerling trout into the river in southwest Colorado near Durango.

The fish are sensitive to changes in water quality. As of Monday, only one fish had died, but the agency said it didn't know if that was because of the metals in the water.

The U.S. Environmental Protection Agency has yet to say if the metals, which include lead and arsenic, pose a threat to human health, frustrating residents and state and local officials in Colorado and downstream in New Mexico and Utah.

About 3 million gallons of wastewater from Colorado's Gold King Mine began spilling on Wednesday when an EPA-supervised cleanup crew accidentally breached a debris dam that had formed inside the mine.

The mine has been inactive since 1923.

12:05 p.m.

Tribal officials with the Navajo Nation have declared an emergency as a massive plume of contaminated wastewater from an abandoned Colorado mine flows downstream toward Lake Powell, which supplies much of the water to the Southwest.

State environment officials in New Mexico and Utah say the plume is passing through the Navajo Nation and headed toward Montezuma Creek near the town of Bluff, a tourist destination.

Some drinking water systems on the Navajo Nation, which spans parts of New Mexico, Arizona and Utah, have shut down their intake systems and stopped diverting water from the San Juan River.

Drinking water was being hauled to some communities.

Navajo President Russell Begaye says the tribe is frustrated with U.S. Environmental Protection Agency and he plans to take legal action. An EPA supervised crew has been blamed for causing the spill while attempting to clean up the area.

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Christian Science Monitor

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<http://www.csmonitor.com/USA/2015/0810/Animas-River-spill-How-Colorado-s-Gold-Medal-waters-turned-mustard>

Animas River spill: How Colorado's 'Gold Medal' waters turned mustard

Pete Spotts

August 10,

The EPA's accidental release of 3 million gallons of contaminated water into the Animas River may provide a 'Cuyahoga River moment' in the region's struggle to deal with water pollution from abandoned hard-rock mines.

In 1999, a two-mile stretch of the Animas River, near Durango, Colo., garnered the state's top award issued for trout-friendly, cold-water habitats. But five days ago, these "Gold Medal" waters turned mustard, as a pulse of more than 3 million gallons of contaminated water poured in from an abandoned mine upstream.

The incident occurred as federal environmental workers were moving earth to try to control underground water levels to prevent just such an outcome.

The stunning event may provide a Cuyahoga River moment in the region's long-running struggle to deal with water pollution from abandoned hard-rock mines.

At least that's the hope some environment groups and researchers in the region express as sediment-laden waste water from the Gold King Mine, near Silverton, Colo., flowed south, then west toward an eventual merger with the Colorado River at Lake Powell.

In 1969, the Cuyahoga River became a highly visible symbol of the nation's water pollution problems after its oily surface caught fire and torched a railroad bridge as it wound its way through Cleveland. Images of a river on fire helped propel landmark federal environmental laws, including the Clean Water Act.

The water burst from the Gold King Mine Aug. 5, as the US Environmental Protection Agency was working to control rising water levels inside the mine.

The ensuing flow of polluted water down Cement Creek and into the Animas River has been painful to watch, notes Judith Kohler, spokeswoman for the National Wildlife Federation office in Denver.

For Colorado and much of the western United States, the fouling of Cement Creek and the Animas River "might be a great teaching moment" regarding pollution from abandoned mines, she says.

The water contained lead, cadmium, arsenic, copper, manganese, and iron at levels substantially higher than state water quality standards define as acceptable, according to EPA measurements taken the day after the blowout.

More than 20,000 abandoned mines burrow into Colorado mountainsides, notes Mark Williams, a geographer at the University of Colorado at Boulder who specializes in alpine hydrology and has worked with the EPA on issues related to polluted water from abandoned mines.

One study he and colleagues conducted found that 1,400 miles of streams in the state failed to meet the EPA's water quality standards for wildlife because of mine contamination.

The West as a whole sports some 500,000 abandoned mines, which "all have problems," although the potential for King Gold Mine-size leaks varies, Dr. Williams says.

And where acidic mine drainage might not have been a significant problem for people in the past, that is changing.

Almost all of the West's abandoned mines are high up on mountainsides, giving leaks nowhere to go but down. In Colorado, for instance, most of the valuable minerals are found at elevations between 9,000 and 12,000 feet.

Such rugged, high-altitude terrain once might have buffered people living at low elevations from the effects of mine-water blowouts. But with population growth in a state that is a prime vacation destination, people have been moving to ever-higher elevations.

What wasn't a problem in the past is becoming a problem now because of the increased use of mountain water," Williams says.

Dealing with contaminated water in abandoned mines is challenging for several reasons.

Alpine hydrology dictates that snowmelt and other forms of surface water will find their way into abandoned mine shafts, where cave-ins can set up dams.

And so many mines have punctured mountainsides that trying to establish a mountain's natural plumbing system, in hopes of perhaps diverting water from entering the mines, can be daunting.

The most effective way to deal with the problem at the moment is to treat the water at the mine, then release it to flow through the watershed. But that can cost between \$500,000 to \$1 million per mine per year, essentially forever.

Politics and public relations also can impede clean-up.

Four years ago, the EPA noted that a group of mines along the upper reaches of Cement Creek were collectively leaking enough contaminated water to qualify as a Superfund site. This would have opened federal coffers to help pay for remediation. But the notion ran into stiff local opposition, in no small part because many people worried that the Superfund label would send tourists elsewhere.

With the current blow-out at Gold King Mine, it's quite likely "that ship has sailed," notes Ms. Kohler.

She notes that this debacle and the broader problem it highlights could encourage support for federal legislation that protects so-called good Samaritans from liability during efforts to clean up old mining sites. These would include nonprofit groups who might want to help undertake cleanup efforts, but who have been discouraged by the EPA with warnings that, in essence, said, "you didn't break it, but you're going to own it," if something goes wrong during remediation efforts, Kohler says.

Concerted efforts to clean up mine contamination can pay dividends, she adds.

For years, the Arkansas River was in tough shape, fouled by mining activities around Leadville, Colo., near the river's headwaters, she explains. Trout were virtually absent from long stretches of river that once teemed with them.

In January 2014, after 20 years of clean-up work, the state designated 102 miles of the river as Gold Medal Waters, where fishing and kayaking once again can flourish.

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CNN

<http://www.cnn.com/2015/08/10/us/epa-river-spill-residents/>

EPA spill: 'We looked at the river and we cried'

By Dana Ford and Ed Payne, CNN

August 11, 9:03 AM

(CNN)From his backyard in Durango, Colorado, Tom Bartles can see the Animas River, which was stained an unnatural orange.

The Environmental Protection Agency accidentally released millions of gallons of pollutants into the water last week, turning the typically blue water to the color of mustard.

"Everybody in town knew it was coming. It was hard to wake up in the morning and see an orange river," Bartles told CNN. "Many of the locals in this region are probably going to experience a certain level of mourning."

By Tuesday, the plume of heavy metals had largely moved on and the river looked clear. A tourist probably wouldn't notice anything was off, but a local would know it's not quite right, Bartles said.

And for him, the biggest concern wasn't the immediate threat anyway; it's the spill's potential long-term and cumulative impact.

"This is a major, major problem," said Jonathan Freedman, a toxicologist at the University of Louisville.

Typically it takes years or even decades for health problems from metals to develop.

'We all share this crisis'

Officials said they believe the spill carried metals like iron, zinc and copper into a creek that feeds into the Animas.

It caused a spike in concentrations of total and dissolved metals in the water, the EPA said. It's unclear exactly what effect that will have.

"It's all questions at this point and very few answers," said Bartles, who described the Animas as the "heartbeat of the community."

A lot of people depend on the river for water, recreation, fishing and farming -- not just in Durango, but up and down the waterway.

"We all share this crisis no matter where we live," said Bartles. "And we all have to take responsibility."

In neighboring New Mexico, the heartbreak of the spill was just as real as the toxic mix moved on.

"We came out here together, and we looked at the river and we cried," Rosemary Hart told CNN affiliate KRQE.

She lives on the Animas and her family depends on a well to get water. The spill has made the water unusable, she said.

"My first concern is the next generations, and what they're walking into," Hart told KRQE.

The U.S. Geological Survey reported the size of the spill to be more than 3 million gallons, compared with the initial EPA estimate of 1 million gallons.

Gov. Susana Martinez has declared a state of emergency.

According to the EPA, the spill occurred when one of its teams was using heavy equipment to enter the Gold King Mine, a suspended mine north of Durango. Instead of entering the mine and beginning the process of pumping and treating the contaminated water inside as planned, the team accidentally caused it to flow into the nearby Animas.

Getting answers from the EPA is critical, according to Doris Stock, who lives along the river.

"We could lose our animals. It could damage our crops. It'll destroy the soil," she told KRQE.

Few answers

Residents are looking for answers, but the EPA has few to offer at this point.

More than 300 people attended an informational meeting at the Farmington, New Mexico, Civic Center on Monday night.

"Over the next few days, the waters in the river are going to clear up," said Jeff Witte, New Mexico's agriculture secretary. "That's doesn't mean they're safe folks."

Mark Hayes of the EPA reminded residents not to use the water until they get an all clear. When that will be, officials don't know.

The dangers

According to the EPA, last Wednesday's spill caused a spike in metal concentrations, but levels "began to return to pre-event conditions" by Thursday.

However, according to the EPA's own data, there were still very high levels of metals on Thursday. An arsenic sample tested 26 times higher than the EPA acceptable level.

Lead was even worse -- much worse.

"Oh my God! Look at the lead!" said Joseph Landolph, a toxicologist at the University of Southern California, pointing to a lead level in the Animas River nearly 12,000 times higher than the acceptable level set by the EPA.

And one thing is for sure: these metals don't disappear. Even if they go down to low levels in the water, they will likely be in the sediment and could be kicked up into the water at any time.

"This was such a horrible accident," Landolph said. "I served on the EPA scientific advisory board, and I have the utmost respect for the agency. I wish them Godspeed in cleaning it up and containing it."

'We'll weather it'

Among those most hurting from the spill are businesses that depend on the Animas day to day.

Andy Corra is an owner of the Durango-based 4Corners Riversports, which has a sister company called 4Corners Whitewater.

"The river is basically closed so that shuts down all the rafting," he said. "They're losing all their revenue."

On good days, he said, that could be as much as \$10,000 a day.

"One day business is booming, and the next day, boom, it's shut off," said Corra. "It's a huge bummer for the whole industry."

He's been in Durango for 35 years and loves it. He called the city a paradise and, without exaggeration, the greatest place in the world.

"We'll weather it. There's a bigger concern for the river, but the river will weather it as well," said Corra.

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The Guardian

<http://www.theguardian.com/us-news/2015/aug/11/colorado-animas-river-spill-mine-toxic-waste-epa>

Confusion plagues EPA response to toxic Colorado mining spill it caused

Caty Enders

August 11, 8:30AM EDT

Six days after a burst plug shot 3m gallons of toxic mining waste from Gold King Mine into Colorado's Animas River, communities in three states are increasingly frustrated that the Environmental Protection Agency (EPA) hasn't explained the environmental and health impacts of the spill.

“For whatever reason, their communications continue to be insufficient,” said Durango-based San Juan Citizens Alliance executive director Dan Olson. “They’re sowing more confusion in the community than they are resolving it.”

A slurry of mercury, arsenic and lead that continues to flow from the disused mine at 550 gallons per minute is expected to keep communities in Colorado, New Mexico and Utah from accessing water until at least 17 August, when the EPA says it hopes to have more information about what exactly is in it.

The federal agency downplayed the short-term impacts on Sunday, when EPA toxicologist Deborah McKean was quoted as saying that the plume would not have “caused significant health effects” to animals. The federal agency is being blamed for the release, which happened during an attempt to clean up mining waste, and has yet to be explained by federal officials.

Olson responded that, while Durango wasn’t seeing immediate wildlife die-offs, the long-term health and environmental effects were impossible to assess: “What’s being reported is that there has been little to no discernible fish mortality. No one should extrapolate that there is no impact to fisheries. The reality is: no one knows what the impacts will be.”

As the plume of toxic water moved its way towards Lake Powell, at the mouth of the Colorado River, bewilderment as to how to interpret the dangers remained prominent.

On Monday morning, residents of Bluff, Utah, reported a slight orange tint in the San Juan river, about 150 miles downriver from Durango. The Bureau of Land Management, however, had not closed the river to recreational boating, according to San Juan County community development planner Charlie Delorme.

“Utah’s division of environmental quality is out sampling right now,” said Delorme, who noted that the small town of Bluff is highly dependent on tourism at this time of year. “We just don’t have hard numbers right now.”

Further downriver, officials at the Glen Canyon National Recreation Area had little information to offer visitors, other than to avoid the arm of the lake flowing from the mouth of the San Juan. That stretch of lake, as of Monday, was closed to fishing, swimming and boating until further notice.

Park ranger and public information officer Cynthia Sequanna said sediment from the toxic plume would hopefully settle in the delta at the entrance to Lake Powell, but that the short- and long-term impacts are unknown at this point. She was unable to say when the toxins might reach the lake. "I don't know exactly where it's at," said Sequanna on Monday afternoon. "I believe it has reached Farmington."

The city of Farmington, New Mexico, which received the first of the plume on Saturday morning, has now turned from bright orange to brown, and community leaders announced Sunday that a temporary water supply for residents would last 90 days.

Colorado's Animas watershed has long suffered damage from 5,400 historic mining sites, 80 of which actively contribute substantial toxic metals. The river has a diminished fish population as a result.

The rivers further downstream, in New Mexico and Utah, however, were relatively pristine before the accident, according to Jen Pelz, of the the conservation group Wildearth Guardian.

"The San Juan river actually has a lot of diversity and so does the Colorado River [even further downstream]. And I don't think anyone knows how bad this can be," said Pelz, who acts as the New Mexico non-profit's Wild Rivers Program Director. "There are going to be impacts right now and there will probably be long-term impacts."

Many critics of the EPA's response have pointed to the lack of cooperation between agencies in dealing with environmental fallout that will span at least three states and the sovereign Navajo Nation.

On Monday, EPA officials announced on a conference call that the organization was moving to address a lack of communication, setting up a command center to coordinate operations.

Joan Card, an adviser to the EPA, announced that no public water systems were affected in Utah and that a total of four were closed in Colorado and New Mexico.

As if to demonstrate the disorder plaguing the agency's response, Ron Curry, a New Mexico EPA administrator jumped in to correct Card, saying that five public water systems were closed in New Mexico alone.

Jared Blumenfeld, an EPA administrator covering the Navajo Nation Area, was unable to say what sort of impact the plume might have on Lake Powell. "We have received some calls from California," which draws water from the Colorado River, wondering if there will be impacts for the drought-stricken state. "We've reached out to the Bureau of Reclamation, who has jurisdiction over Lake Powell," and they are soon to begin testing, said Blumenfeld.

The EPA said that it still had not identified how many thousands of individuals or wells might have been affected.

At a somber crisis meeting of the Navajo Nation Council on Monday, delegates with their stetsons on the table aired their concerns. Representatives from tribal communities all along the San Juan river spoke of a new era, where water could not be taken for granted. They mentioned previous radioactive and heavy metal contamination from historic mining throughout their rivers. Some hinted at a reconsideration of the extensive corporate mining ventures contracted on their 27,000-square-mile territory.

Also at the meeting was New Mexico environment secretary, Ryan Flynn, who said he was prepared to help the Navajo Nation with their announced lawsuit against the EPA. "I'm willing to fight them, I plan to fight them – I promise, I will stand side by side with you," said Flynn, who said he was fed up with what he saw as deliberate misinformation from the federal agency. "The first summary of data they provided us was misleading," he noted, saying it was presented in a way that attempted to "spin" the truth.

Flynn said that he distrusted the EPA to the extent that the state is ordering its own water testing from the San Juan.

Tom Chee, a delegate from Shiprock, pleaded for cooperation from state representatives to answer immediate concerns about water shortages.

Chee pointed out that the Navajo Nation, which stretches across three states, was being told by the EPA to withhold water from livestock and crops in the midst of one of the hottest months of the year. "We're right in the middle of farm season, and we need answers as quickly as possible to say: this is the time to release the water," said Chee. "We'll worry about lawsuit later on. The real answer is how do we address the cries of our elders and get the water back to its normal use."

He urged that thoughts of a lawsuit should be put aside by tribal leaders while they focus on cooperation with other communities and the concerns of the people living along the river. "I think water transcends cultural barriers, language, belief systems," Chee said. "I have heard two days of weeping from our elders: what if this problem persists? What if our river dies? There goes our culture, our language. You cannot put monetary value on a way of life."

Inquisitr

<http://www.inquisitr.com/2326137/silverton-colorado-toxic-spill/>

Silverton, Colorado: State Of Emergency Declared Following Massive Toxic Spill [Video]

Citizens of Silverton, Colorado were treated to a horrific sight last week as a huge toxic spill from an old mine turned the Animas River bright orange. A whopping three million gallons of toxic waste spilled into the Silverton waterways in a stream estimated to be 100 miles long.

What began as an attempt by the Environmental Protection Agency to protect the people of Silverton from the harm of the old abandoned Gold King Mine turned disastrous as they inadvertently released toxic sludge into the Silverton waterways. Originally estimated at one million gallons, the spill into Silverton has since been reevaluated at three million gallons.

The toxic sludge contains arsenic, lead, and other potentially harmful heavy metals. According to ABC News, Colorado governor John Hickenlooper says this type of spill could happen again, and he plans to do everything in his power to clean out the old mines and keep Silverton and surrounding areas safe.

“We are aware that there are a number of old mines that have water dams like, similar to this, and we’re going to go back through them. People think about Colorado for our skies and our landscapes and our rushing rivers. They don’t want those rivers to be orange.”

Silverton, Colorado, is not the only area, or state, affected by the toxic spill. The Los Angeles Times reports the Environmental Protection Agency has stated no immediate health threats are expected, as the sludge is moving very rapidly and is also diluted by the large river. However, that also means the sludge is moving into New Mexico and, potentially, Utah.

The Navajo Nation, which spans areas in New Mexico, Utah, and Arizona, declared a state of emergency and stopped using water from the San Juan river.

According to KRQE News, New Mexico governor Susana Martinez has also declared a state of emergency. She plans to use the additional state funding to support response teams, test water wells, and study long term effects of the sludge.

So far, the Los Angeles Times further reported, the wildlife in Silverton, Colorado have not

seemed to suffer any issues due to the toxic mine sludge. A Colorado environmental group studied flies exposed to the Silverton water and did not note any unusual symptoms.

The following video shows an aerial view of the orange river. It is almost unfathomable.

Colorado governor declares state of emergency due to wastewater spill

Silverton is just the beginning of the path the toxic fluid will take during its journey. How long will the water remain orange? How many states will be affected? Will the animals of Silverton continue to show little to no issues from exposure to the contaminated water? These questions are yet to be answered.

NBC News

<http://www.nbcnews.com/news/us-news/colorado-mine-spill-toxic-wastewater-leak-far-exceeds-first-estimates-n407091>

State of Emergency: Colorado Wastewater Leak Far Exceeds First Estimates

Erin McClam

August 10, 7:20 PM ET

Gov. John Hickenlooper of Colorado declared a state of emergency on Monday, five days after a spill that sent toxic water seeping from an abandoned gold mine and turned a river orange.

The Environmental Protection Agency said Sunday that 3 million gallons of wastewater had spilled, three times as much as earlier estimates, and that health risks to humans and aquatic life

were not yet clear.

Hickenlooper said the disaster declaration would allow him to use \$500,000 from the state's disaster fund to pay for the response. Some of the money will go toward towns and businesses hurt by the spill.

"We will work closely with the EPA to continue to measure water quality as it returns to normal, but also to work together to assess other mines throughout the state to make sure this doesn't happen again," the governor said in a statement.

On Wednesday, an EPA-supervised cleanup crew accidentally breached a debris dam that had formed inside the Gold King Mine, shuttered since 1923, sending a yellow-orange sludge leaking into the Animas River.

Water collected downstream showed higher than normal levels of arsenic, lead and other metals. In Durango, Colorado, the mayor assured people the water was safe to drink because the city shut off its intake valve from the Animas.

Still, "the river for us is an integral part of our community," state Sen. Ellen Roberts, who represents Durango, told MSNBC on Monday. "It's where people get married. People do their own private ceremonies along there. It's our daily life."

The discolored water reached New Mexico and was headed for Utah. Authorities there were planning to shut two wells that serve the town of Montezuma Creek. A tank of residential water in Halchita, Utah, was filled with water shipped from Arizona.

NBC News

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<http://www.nbcnews.com/news/us-news/colorado-river-spill-early-tests-show-little-threat-fish-wildlife-n407586>

Colorado River Spill: Early Tests Show Little Threat to Fish, Wildlife

M. Alex Johnson

Aug 11, 8:47 AM ET

Toxic spill in Colorado's Animas River 3 times larger than reported 2:23

Preliminary tests on the once-toxically orange Animas River in Colorado indicate little danger to fish or other wildlife, authorities said Monday, five days after a spill sent contaminated water seeping into the river.

Gov. John Hickenlooper declared a state of emergency after the Environmental Protection Agency said Sunday that 3 million gallons of wastewater had spilled, three times as much as earlier estimates. The declaration will allow Hickenlooper to spend half a million dollars from the state's disaster fund on the incident.

The river flowed bright orange in the days after a cleanup crew supervised by the U.S. Environmental Protection Agency accidentally breached a debris dam that had formed inside the Gold King Mine on Wednesday, sending a yellow-orange sludge leaking into the Animas River. Water collected downstream showed higher-than-normal levels of arsenic, lead and other metals.

By Monday, cleanup efforts had left many parts of the river clearer, with a greenish hue.

Local authorities said drinking water was safe because they'd shut off intake valves from the Animas, and Monday, the state Parks and Wildlife Department said results of five days of tests found "no evidence" of adverse effects on fish and wildlife along the river corridor.

The parks agency said it embedded trout fingerlings in cages along sections of the river on

Thursday so it could monitor the water's impact. Monday, all but one of the 116 fingerlings were still alive, and no dead fish had been spotted elsewhere along the river, it said.

"A visit this afternoon found all lively little fish," the La Plata County government said in announcing the state results, adding: "Biologists have also walked and floated parts of the river looking for evidence of dead fish. No dead fish were found and there is no evidence of scavenging by other animals."

The EPA said Monday it was listing the spill as a top priority under the Superfund program to allow for a more extensive cleanup effort.

The discolored water has already reached New Mexico. New Mexico Gov. Susana Martinez also declared a state of emergency Monday, saying she plans "to hold EPA accountable for this."

The next likely destination for the contaminated water is Utah, where state environmental quality officials said they expect to have test results from a stretch of the San Juan River by Tuesday.

"We're kind of in a wait-and-see mode right now," Donna Spangler, a spokeswoman for the state Department of Environmental Quality, told NBC station KSL of Salt Lake City.

Shaun McGrath, director of the EPA's Region 8, told NBC station KOB of Albuquerque that the agency would conduct a separate independent investigation to see what happened.

"We'll look back and we'll be taking steps in the future to ensure that we avoid these kinds of events," he said.

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NBC News

<http://www.nbcnews.com/news/us-news/toxic-colorado-mine-spill-black-eye-epa-n407746>

Toxic Colorado Mine Spill a Black Eye for EPA

By Tony Dokoupil

Aug 11, 2015, 8:24 AM ET

For almost a week, a torrent of toxic sludge — the color of hot mustard and rife with poisonous metals — has been flowing through Colorado, Utah and New Mexico. On Monday, the governor of Colorado declared a belated state of emergency, as officials announced that the popular Animas River would remain closed until at least Aug. 17.

The Environmental Protection Agency was on the scene faster than usual, containing the spill and starting the cleanup process. That's the good news. The bad news is that the EPA caused the spill in the first place.

"We've launched an independent investigation to see what happened, and we'll be taking steps to ensure that something like this doesn't happen again," Shaun McGrath, the EPA administrator in charge of the region, told reporters on Monday.

At a public meeting on Friday, David Ostrander, the EPA's regional director of emergency preparedness, struck an even more contrite tone. "It's hard being on the other side of this," he said. "We typically respond to emergencies. We don't cause them."

The spill is a costly and ill-timed error for Mother Nature's premier federal defender. By law, the agency has to pay off people who suffered personal injury or property damage as a result of governmental actions, and there's likely to be a number of those claims.

On Wednesday morning, the EPA now admits, more than 3 million gallons of errant goo slid out

of a dormant gold mine and into the Animas River. That's three times as much as original estimates.

But the appearance of incompetence is likely to make this spill a political headache, too. It comes as the agency is already under broad attack for its role as the muscle behind President Barack Obama's Clean Power Plan, and, indeed, much of the administration's broader plan to combat global warming.

So far, the EPA has said very little about the cause of the spill, and it declined msnbc's request for additional comment. Officials acknowledged that the spill was triggered while an EPA-supervised crew was working near Silverton, Colorado, in the southwest part of the state.

Fluid from inside the Gold King Mine, shuttered since 1923, has been leaching into the surrounding area. That mine alone was a slow motion disaster, in the EPA's opinion, and the area is shot through with dozens of similarly toxic wells. It's so bad that the EPA has tried to declare the area a Superfund site — clearing the way for an ambitious cleanup.

But after local opposition, the agency opted for a more modest, incremental plan. A crew would slurp out the worst pools of sludge and dispose of them properly. That was the goal near Silverton when heavy equipment somehow disturbed an earthen wall that secured the liquid, releasing an up to 80-mile ribbon of pollution downstream.

The extent of the damage was still unknown late Monday. The orange color had dissipated, but it left behind layers of sludge in some places and a plume of toxins still cruising downriver. The most worrisome pollutants are arsenic and lead, which respectively peaked at 300 times and 3,500 times the normal levels, according to EPA test results released on Friday.

In nearby Durango, Colorado, the mayor assured people that the water was safe to drink because the city shut off its intake valve from the Animas. But farmers, tribal leaders and municipal officials elsewhere closed wells and switched thousands of residents to alternative sources of water as a precaution.

Seven water systems in New Mexico and Colorado have been affected, officials said, and the Animas River ultimately connects with the Colorado River — a source of drinking water for much of the West.

The less calculable costs, of course, are all psychological. The beauty of the Animas River was the backdrop for parts of the film "Butch Cassidy and The Sundance Kid," and thousands of tourists ride down it on kayaks or paddle boards every year.

"The river for us is an integral part of our community," state Sen. Ellen Roberts, who represents Durango, told msnbc on Monday. "It's where people get married. People do their own private ceremonies along there. It's our daily life."

New York Times

<http://www.nytimes.com/2015/08/11/us/durango-colorado-mine-spill-environmental-protection-agency.html>

Environmental Agency Uncorks Its Own Toxic Water Spill at Colorado Mine

By Julie Turkewitz

Aug 10, 2015

DURANGO, Colo. — The Animas River is the cultural soul of this patch of southwestern Colorado, a sort of moving Main Street that hosts multiple floating parades a year and is typically bustling with rafters and kayakers. Schoolchildren study the river. Sweethearts marry on its banks. Its former name, given by Spaniards, is el Río de las Ánimas, the River of Souls.

But since Wednesday, the Animas has been grievously polluted with toxic water spilled from one of the many abandoned mines that pockmark the region — a spill for which the Environmental Protection Agency has claimed responsibility, saying it accidentally breached a store of chemical-laced water.

On Sunday, anger over the spill boiled over after the agency announced that the amount of toxic water released was three times what was previously stated — more than three million gallons rather than one million — and that officials were still unsure if there was a health threat to humans or animals.

People kayak in the Animas River near Durango, Colo., in water colored from a mine waste spill. Wastewater Spill in Colorado Turns a River Yellow AUG. 7, 2015

The day of that announcement, State Senator Ellen Roberts, a Republican who lives near the river, cried softly as she considered the pollution, adding that she had dropped her father's ashes in the depths of the river, which pollutants had turned into an unnatural-looking yellow-orange ribbon.

Scott Roberts, an aquatic biologist with Mountain Studies Institute, collecting insects from the Animas River on Sunday, to check on their health. Credit Jerry McBride/The Durango Herald, via Associated Press

"It is not just a scenic destination," Ms. Roberts said. "It is where people literally raise their children. It is where the farmers and ranchers feed their livestock, which in turn feeds the people. We're isolated from Denver through the mountains, and we are pretty resourceful people. But if you take away our water supply, we're left with virtually no way to move forward."

On Monday, Gov. John W. Hickenlooper released \$500,000 in funds for assistance. The City of Durango and La Plata County have declared states of emergency.

Soon after the spill was detected, city officials stopped pumping water from the Animas into the reservoir that provides drinking water for Durango's 17,000 residents — taking action swiftly enough that the contamination did not reach the drinking supply. The reservoir still receives water from the Florida River, a tributary of the Animas, but the city has asked local residents to conserve so that the reservoir does not get too low.

Most people living outside the city use wells, and officials say about 1,000 residential water wells could be contaminated.

The river is closed indefinitely, and the county sheriff has hastily recast his campaign signs into posters warning river visitors to stay out of the water. The yellow plume has traveled down to New Mexico — where officials in several municipalities have stopped pumping river water into drinking water systems, fearing contamination — and to the Navajo Nation.

Testing by the E.P.A. — an agency typically in the position of responding to toxic disasters, not causing them — found that the wastewater spill caused levels of arsenic, lead and other metals to spike in the Animas River.

On the day of the accident, a team from the agency had been investigating an abandoned mine about 50 miles north of here. Called the Gold King, it is roughly 1.5 miles long and about 700 feet tall at its highest point. The mine had been abandoned for nearly a century, but between roughly 1890 and 1920 it produced 350,000 ounces of high-grade gold, according to its owner.

For years, the Gold King has leaked toxic water at a rate of 50 to 250 gallons a minute. The agency had planned to find the source of the leak in the hope of one day stanching it. Instead, as workers used a backhoe to hack at loose material, a surprise deluge of orange water ripped through, spilling into Cement Creek and flowing into the Animas. The burst did not injure workers.

In his first interview since the spill, the owner of the mine, Todd Hennis, said the spill was probably the fault of another mine company — the Sunnyside Gold Corporation — that had built retention walls inside an abandoned mine near the Gold King, part of an old cleanup agreement with the federal government. Once the Sunnyside mine filled with wastewater, the water probably spilled into the Gold King, and then into the Animas, Mr. Hennis said.

He urged Sunnyside's parent company, the Kinross Gold Corporation, to clean up the mess. "They've got to step forward and be responsible," he said of Kinross. A spokesman for Sunnyside, Larry Perino, said the company had no role in Gold King spill.

Since the 1870s, metal mining has both enriched and poisoned this region, turning the earth

under portions of southwest Colorado into a maze of tunnels and leaving behind shuttered sites oozing with chemicals. There are about 200 abandoned mines in the Animas watershed. Sunnyside was the last to close, in 1991.

On Sunday night, residents packed a school auditorium in Durango for a meeting with the E.P.A.'s regional director, Shaun McGrath. During a public comment session that lasted more than two hours, residents flouted a sign on the wall that instructed the auditorium's typical patrons — middle schoolers — to refrain from calling out, jumping up or insulting others during assemblies.

Shouts rang out. A few people cried. One resident questioned whether the agency had refashioned itself into the "Environmental Pollution Agency." Others demanded to know what would happen to wildlife, livestock, water wells, sediment and river-based jobs.

"When — when can we be open again?" asked David Moler, 35, the owner of a river-rafting company who had approached a microphone. "All I hear is a handful of 'gonna-dos,' " he added. "What should I tell my employees?"

Mr. McGrath and his colleagues urged patience and assured residents that they would provide information about health risks once they had it. The agency, he said, is awaiting test results to determine whether the water poses a risk.

"We're going to continue to work until this is cleaned up," Mr. McGrath said, "and hold ourselves to the same standards that we would anyone that would have created this situation."

Reuters

<http://www.reuters.com/article/2015/08/11/us-usa-colorado-spill-idUSKCN0QG14B20150811>

Rivers hardest hit by Colorado mine waste spill to stay closed until Aug. 17

By Steve Gorman

Aug. 11, 2015 7:05 am EDT

Two rivers in Colorado and New Mexico hardest hit by contamination from toxic wastewater spilled from a defunct gold mine will remain closed to drinking water and irrigation intakes for at least another week, U.S. environmental officials said.

The San Juan River and its northern tributary, the Animas River, have been fouled by the release of more than 3 million gallons (11.3 million liters) of acid mine drainage inadvertently triggered by a team of Environmental Protection Agency (EPA) workers last week.

The discharge has continued to flow at the rate of 500 gallons (1,900 liters) per minute from the site of the century-old Gold King Mine, near the town of Silverton in southwestern Colorado, into a stream below called Cement Creek.

The wastewater has then washed into the Animas River and into San Jan River in northwestern New Mexico.

The orange-tinged contamination plume, containing heavy metals such as arsenic, mercury and lead, has dissipated through dilution as it spreads downstream, with its leading edge no longer visible from aerial surveys, the EPA said.

However, experts say a long-term concern is the deposit of heavy metals from the spill that have settled into river sediments, where they can be churned up and unleash a new wave of pollution when storms hit or rivers run at flood stage.

An unspecified number of residents who live downstream from the mine and draw their drinking supplies from private wells have reported water discoloration, but there has been no immediate

evidence of harm to humans, livestock or wildlife, according to EPA officials.

Still, residents have been advised to avoid drinking or bathing in water drawn from wells in the vicinity.

Two Colorado municipalities, including the city of Durango, and the New Mexico towns of Aztec and Farmington have shut off their river intakes, the EPA said.

EPA officials said on Monday the Animas and San Juan rivers would remain closed until at least Aug. 17 to drinking, irrigation supply, fishing and boating as experts try to gauge safety risks posed by the spill.

Wastewater continues to pour from a tunnel wall accidentally breached by EPA crews last Wednesday but the concentration of heavy metals reaching local streams has diminished.

Emergency treatment of the effluent by diverting it into settling ponds before it empties into Cement Creek has reduced acidity and metal levels in the creek, the EPA said.

The creek's water quality was already badly degraded from a long history of acid mine drainage in the area, EPA officials acknowledge.

The conservation group American Rivers says Colorado has more than 4,000 abandoned mines, about 1,100 of them around Silverton, which it calls "ticking time bombs."

The Navajo Nation has also been affected. Its sprawling reservation is traversed by the San Juan River, which flows through southeastern Utah into Lake Powell. It was uncertain how far significant contamination from the spill would travel.

Time

<http://time.com/3991302/colorado-waste-water-spill/>

What The Colorado Waste Water Spill Tells Us About Mining Contamination

By Justin Worland

Aug. 10, 2015

Scientists grappled with the consequences of a spill of toxic wastewater on Monday, one day after the Environmental Protection Agency (EPA) reported that an accident had led to 3 million gallons of mining runoff flowing into a river in Colorado used for drinking water. But researchers who study water resources in the region say the spill, while significant on its own, is just the latest example of the much broader problem of water contamination from mining processes.

“In the Rocky Mountain area, acid rock and acid mine drainage is a major water quality problem,” said Diane McKnight, a professor civil, environmental and architectural engineering at the University of Colorado. “This is certainly an unfortunate event, but the impact of acid rock and acid rock drainage is well recognized and understood in Colorado.”

Acid drainage results when water flows through acidic minerals that have been exposed due to mining. Water that contains these minerals in high volumes becomes unsafe for drinking. Colorado alone has hundreds of mines that have created acid drainage—but rarely on the scale of last week’s incident.

Last week’s event was the result of an accident inadvertently caused by EPA workers looking into reports that a mine was leaking contaminated water. During the process, loose material gave way and released millions of gallons of contaminated water, turning the Animas River orange and yielding it unusable for days. Water is still spilling into the river at a rate of 500 gallons per minute, though the EPA has set up a filtering system aimed at removing toxic elements, including copper, lead and manganese, according to regional EPA administrator Shaun McGrath. Still, officials urged local residents to await further tests, which should happen within the next

few days, before using the water. The river has been temporarily disconnected from the public water supply.

The consequences of last week's incident could have lasting repercussions. Events like heavy rain and melting snow that disturb sediment settled at the bottom of the river may release some of the toxic minerals deposited there by the spill. If that happens, local officials will need a game plan to test the water and inform those who may be at risk, said Williams.

The spill has angered local residents, many of whom depend on the river for livestock and tourist businesses. Still, this is hardly the first mining wastewater spill in the area. Largely due to mine pollution, the water doesn't support a very robust ecosystem, though some organisms manage to live in it. "It's not correct to say these are lifeless streams," said McKnight. "There's certainly bacteria and some algae growing."

Ultimately, Williams says he hopes the incident raises awareness about the bigger problem of mines polluting waterways throughout the region. The technology exists, Williams says, and efforts by the EPA and other agencies to remediate toxic sites need to be funded fully.

"You hear about pollution, it doesn't really register," he said. "Then you see this blob of yellow running down the river."

TV Newsroom

<http://tvnewsroom.org/newslines/business/toxic-spill-expected-to-reach-lake-powell-this-week-79010/>

Toxic Spill Expected to Reach Lake Powell This Week

August 11, 2015

“Basically water can dissolve rocks that are in the mountains on the west slope and as those minerals dissolve and release into the stream, the heavy metals can cause lots of issues”, he said.

La Plata County, Colorado Department of Public Health and Environment (CDPHE), EPA, and San Juan Basin Health are conducting sampling upon request of household wells.

Initial testing for heavy metals showed the levels may be high.

“There’s no question that they haven’t been taking this as seriously as the state has”, Flynn said.

State environmental quality officials expect to have test results Tuesday from a stretch of the San Juan River contaminated with waste from a Colorado mine.

The polluted waters were carried along the Animas River through Durango, Colo., and then flowed into the San Juan River at the confluence of the rivers in Farmington, N.M., on Saturday morning. Even if they go down to low levels in the water, they could likely be in the sediment and could be kicked up into the water at any time.

Going forward, it is also time to consider adding the Gold King mine to the Superfund list, which would spring more money as well as trigger a long-term cleanup plan, but which local communities have opposed. And they will also vary by river segments since the impact to the river system depends on their distance from the source of the contaminated mine. The river flows south and into the San Juan River in New Mexico and eventually to Lake Powell. “Right now we’re just canceling by the day”, said Drew Beezley, co-owner of 4 Corners Whitewater in Durango, Colorado. Federal officials say all but one of a test batch of fingerling trout deliberately exposed to the water survived over the weekend. Lake Powell, where the river first enters Arizona, is located 250 miles further downstream.

The Environmental Protection Agency (EPA) now says that three million gallons of wastewater spilled from an abandoned mine last week.

The spill happened at the Gold King Mine on Wednesday. He says he has no other resources.

Members of New Mexico's congressional delegation sent a letter to EPA Administrator Gina McCarthy, expressing concern over the failure of the agency to notify New Mexico sooner about the problem.

Experts estimate there are 55,000 such abandoned mines from Colorado to Idaho to California, and federal and state authorities have struggled to clean them for decades. For some, money is affected by the quality of water, as well.

"It's a pain", Hemmingson said of not being able to use the well water.

Gov. John Hickenlooper is expected to arrive in Durango on Tuesday to assess damage after contamination of the Animas River from runoff from the Gold King Mine blowout.

The mine has been inactive since 1923.

The bright orange toxic sludge has crossed the state border into New Mexico, reaching the New Mexico municipalities of Farmington, Aztec, and Kirtland.

Still, residents were advised to avoid drinking or bathing in water drawn from wells in the vicinity, and the government was arranging to supply water to homes and businesses in need.

Drinking water was being hauled to some communities.

The agency said it has deployed response teams to Durango and Silverton, Colorado, as well as northwest New Mexico and the Navajo Nation.

Wall Street Journal

<http://www.wsj.com/articles/colorado-pledges-funds-to-help-clean-up-gold-mines-sludge-spill-1439237643>

Colorado, New Mexico Free Up State Funds for Gold-Mine Spill

Dan Frosch

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The governors of Colorado and New Mexico declared emergencies Monday, freeing up state funds to help clean up a mine spill that sent an estimated three million gallons of toxic, mustard-hued sludge surging through the regional river system.

The announcements allocate \$500,000 in state money for Colorado and an additional \$750,000 for New Mexico, on top of \$500,000 disbursed Friday.

The spill occurred Wednesday after an Environmental Protection Agency cleanup crew accidentally triggered a breach in an abandoned gold mine, releasing a plume of contaminated water.

“I had the chance to see the spill with my own eyes. It is absolutely devastating, and I am heartbroken by this environmental catastrophe,” said New Mexico Gov. Susana Martinez, a Republican, adding she was concerned about the EPA’s “lack of communication.”

The EPA has apologized for the accident, with one official calling it a tragedy. The agency also said it regretted a slow response that has drawn sharp criticism from officials and residents in Colorado and New Mexico.

The sludge, which flowed down the Animas River and emptied into the San Juan River in New Mexico, contains such contaminants as lead and arsenic from the Gold King Mine, north of Silverton, Colo., one of thousands of abandoned mines across the western U.S.

“Our priority remains to ensure public safety and minimize environmental impacts,” said Colorado Gov. John Hickenlooper, a Democrat. “We will work closely with the EPA to continue to measure water quality as it returns to normal, but also to work together to assess other mines throughout the state to make sure this doesn’t happen again.”

The EPA is working to determine the extent of the pollution, which has affected several public water systems in Colorado and New Mexico, federal officials said Monday.

Officials in Colorado’s La Plata County said the spill hadn’t affected drinking water in Durango, because the city had shut off its water intake from the Animas River before the spill had reached it. But over 1,000 local wells were at risk, they said. Leaders of the Navajo Nation, where many rely on well water, have also expressed concern the spill could affect drinking water there as the sludge wove its way downstream towards its reservation.

The EPA said Monday it didn’t expect to open up closed portions of the river until at least Aug. 17. The agency said it was sending dozens of staff to the affected area, which includes Utah, to help with the cleanup.

“We’re really ramping up our response here on the ground—in Durango, and more broadly across the whole area,” said Shaun McGrath, regional EPA administrator.

There were initial indications that the spill hadn’t immediately affected aquatic life as testing

showed small insects in the river near Durango were alive after exposure to the contaminants.

Meanwhile, frustration and concern continued to mount in southwestern Colorado and northern New Mexico, where the late-summer river recreation season, a vital cog in local economies, had been effectively shut down. Officials emphasized that the spill's effects remained uncertain, even as the water, tinged an eerie yellow, started to run clearer.

"I've been inundated with constituents calling me asking whether the water will ever be safe again," said Gwen Lachelt, a La Plata County commissioner. "We are deeply concerned with water quality when we have a major rainstorm and during spring runoff due to the sediment deposited during the spill."

Ms. Lachelt said county officials had asked the EPA to begin assessing the dangers posed by the abandoned mines in the area to the Animas and San Juan rivers.

"The real frustration is that we have no data," said Peter Butler, co-coordinator for the Animas River Stakeholders Group, made up of local environmental organizations, along with mining companies and federal and state agencies. "The river is a big deal in Durango. And we don't have any data about what was in the plume when it came through the town."

In New Mexico, state officials said they were overwhelmed with calls from residents in rural San Juan County worried that their wells might be contaminated.

Allison Scott Majure, spokeswoman for New Mexico's environment department, said there was concern that even after the plume passed through, contaminated sediment could seep into wells. The state was offering free well testing to residents in the Animas River floodplain, she said.

"We're still feeling a bit frustrated with EPA," she said. "They'll have more of their team here for domestic well testing tomorrow. We could have used them today."